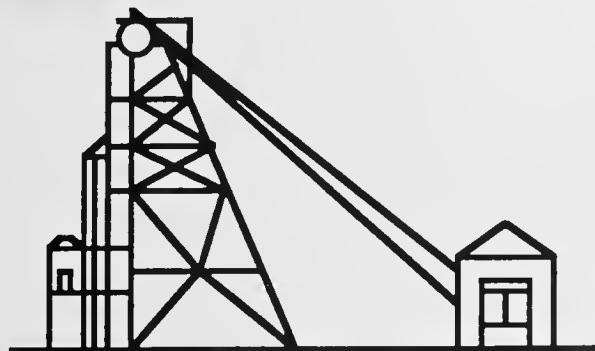


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ADDENDUM TO:
CULTURAL RESOURCE INVENTORY AND EVALUATION
of Selected Coal Mines and a Gold Mine near Lewistown, Montana. 1987

for

The Montana Department of State Lands
1625 - 11th Avenue
Helena, Montana 59601

February 1989

GCM SERVICES INC.

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INTRODUCTION

In October of 1987 GCM Services, Inc. of Butte, Montana was contracted by the Montana Department of State Lands (DSL) to perform a cultural resource inventory and evaluation of selected abandoned coal and hard rock mines in Montana as part of the DSL's abandoned mines reclamation program. In the autumn of 1988 GCM surveyed and evaluated two sites in the Lewistown coal field near the community of Forest Grove in Fergus County (Figure 1). Previously, in late 1986 and early 1987, GCM surveyed and recorded 14 mine sites in the Lewistown coal field (Munson 1987). The two sites examined in this report - the McBride mine (24FR680) and the Section 4 prospect (24FR681) - are characteristic of the sites described in the 1987 report. The background and reference material remains the same and should be consulted for reference to the two sites described in this report.

Methodology used during the field study of the McBride mine and the Section 4 prospect was also the same as that used during the 1986-1987 survey. The fieldwork on the McBride mine and the Section 4 prospect was conducted by Paul Anderson on December 3, 1988. Maps for the report were prepared by Jim Duran and the report was edited by Lynn Fredlund.

Site inventory forms for the McBride mine and Section 4 prospect are in Appendix A. The site forms provide the detailed information on the two site's existing features as well as a historic discussion and evaluation of the sites in terms of their contribution to the history of the surrounding region. Maps and photographs supplement the written material. The site forms are on file at the state repositories at the Montana State Historic Preservation Office in Helena and the Department of Anthropology at the University of Montana in Missoula.

All field notes, photographs and supportive information resulting from the cultural resource fieldwork will be maintained at the office of GCM Services, Inc., Butte, Montana.

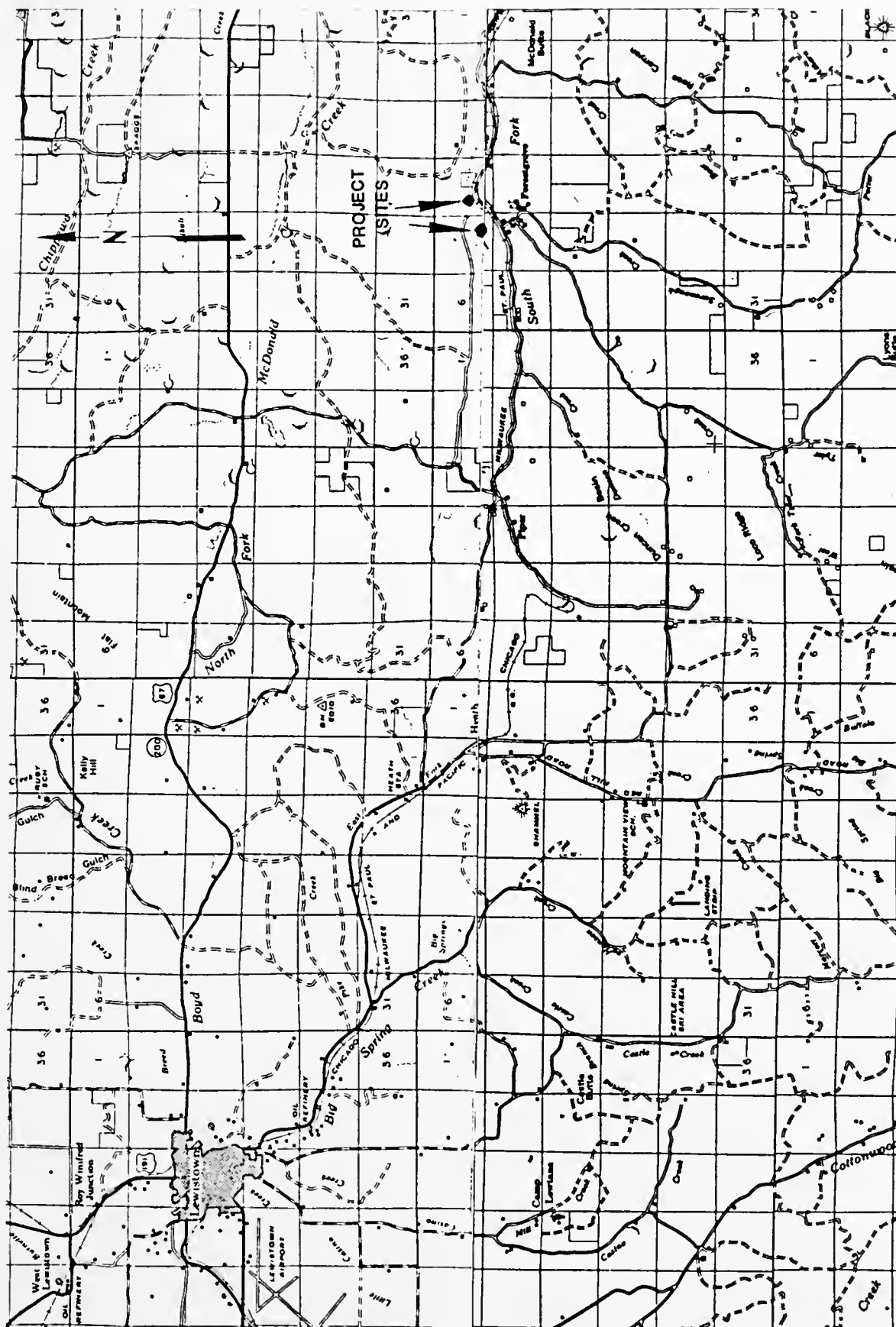


Figure 1. Map showing location of the project sites (from: BLM Snowy and Judith land use maps).

Table 1. Legal descriptions of the project mines.

McBride mine	T14N, R21E SW1/4 NE1/4 SE1/4 Section 5
Section 4 prospect	T14N, R21E SW1/4 NE1/4 SW1/4 Section 4

Results of the Site Files and Records Search

A search of the Montana Preservation Plan with Historic Sites Compendium did not show any historic or archaeological sites within the immediate vicinity of the Forest Grove area.

A search of the site files in the State Historic Preservation Office in Helena listed the Brodie and Apple mines (24FR633) and the Phillips mine (24FR634) which were recorded and evaluated in the 1987 GCM report on the Lewistown coal field (Munson 1987). The site files also show a lithic scatter (24FR239) in the SE1/4 of Section 4, T14N, R21E.

HISTORIC SITE NARRATIVES

McBride Mine (24FR680)

Little is known about this small coal mining operation. No record of the mine exists in the cancelled mine lease files in the Billings, Montana office of the Bureau of Land Management indicating that no license, permit or lease was ever obtained for the operation. According to Forest Grove resident, Austin Eike, the mine was opened by Joe McBride during the early 1920s and was operated by him until the early 1930s. Although the two adits and coal slack piles appear to be two separate operations, the underground workings were connected and the mine was operated as a single unit. Based on the size of the slack piles, it can be estimated the mine workings probably extended no more than a couple hundred feet into the hillside. The mine was operated during the autumn and winter and probably produced, at most, around 1000 tons of coal a year. Calvert (1909) described the coal in the Hobson mine, located two miles west of the McBride mine as consisting of two benches with the lower being seven inches thick and the upper 34 inches thick with a two-inch bone parting between them. The roof was a massive cross-bedded sandstone of the Kootenai formation while the floor was light-colored shale. A similar seam was probably mined in the McBride mine (Calvert 1909; Eike 1989).

Section 4 Prospect (24FR681)

The location of this small coal prospecting operation is indicated on the USGS Horsethief Coulee East, Montana quadrangle map and is mentioned by Calvert (1909) but little else is known about the operation. The field work for Calvert's study of the Lewistown coal field was conducted in 1907 so the prospect was probably dug sometime a few years before this date. Calvert reported the coal seam was 40 inches thick in the prospect but that it did not appear to be "...of workable character in this locality." He gives no indication that any actual mining was ever undertaken on the site nor had local informants ever heard of any mining operation in this area. The absence of coal waste or structural remains would indicate that the prospect was anything more than a shallow, exploratory prospect to the coal seam (Calvert 1909; Eike 1989).

SUMMARY AND RECOMMENDATIONS

The McBride mine was typical of the general pattern of small commercial coal mines scattered through out the Lewistown coal field. As was the case with most of these mines, the McBride was probably operated by two or three men during the autumn and winter. Equipment would have been limited to basic hand tools and simple machinery - often hand built from old auto or truck parts. Coal cars in the mines were either hauled by a pony or mule or were pushed by hand by the miners. Elaborate hoisting machinery was usually not needed since the coal seams were easily reached by horizontal adits rather than vertical shafts. Water was generally not a problem in the Lewistown coal field and pumps were usually not necessary to keep the mines dry. Ventilation of the mines was, in most cases, accomplished by natural convection of air currents and powered fans were seldom used. The McBride mine does not appear to have had any unique features but rather fits the above description of the small commercial mine which operated in this region during the period between World Wars One and Two. Although mines such as the McBride were only small operations, collectively they were of great significance to the local economies during this period when coal was practically the only cheap, available fuel available to the farms, ranches and small towns in the surrounding areas.

The McBride mine appears to have once had two small loading chutes or tipples at each adit entrance plus a small wood shack at the east adit and this was most likely the extent of the surface facilities. However, only remnants of the structures remain on the site in addition to the two coal waste dumps. It is unlikely the site could provide additional information on coal mining in the area and therefore the site is not recommended as eligible for listing on the National Register of Historic Places (NRHP).

The Section 4 prospect was originally only a minor operation to explore the extent of the local coal seam. No actual mining was apparently ever done on the site and it is unlikely any surface facilities were ever constructed. Virtually no trace of the operation remains at the location of the prospect. The site has little historical value and no possibility of providing further information. It is also not recommended as eligible for listing on the NRHP.

The McBride mine's coal waste dumps are a source of water pollution to the South Fork of McDonald Creek and the mine openings are an obvious and serious danger. The reclamation plans of the Montana Department of State Lands should proceed on schedule. The sites have been recorded, mapped and photographed and no further work is recommended but if any subsurface prehistoric or historic cultural materials are revealed during the reclamation work, the State Historic Preservation Office in Helena should be notified immediately.

ADDENDUM TO REFERENCES CITED IN 1987 REPORT

Eike, Austin

1989 Personal communication, January 24, Forest Grove, Montana.

APPENDIX A:

Site Forms

McBride Mine (24FR680)
Section 4 Prospect (24FR681)

MONTANA CULTURAL RESOURCES INVENTORY

Form No. 1. Locational Information

1.1 Site Number
24FR680

1.2 Site Name
McBride Coal Mine

1.3 County
Fergus

1.4 Township/Range: T14N, R21E SW1/4 NE1/4 SE1/4 Section 5

1.5 UTM: Zone
12

Easting
645900

Northing
5206900

1.6 Site type: Historic coal mine

1.7 Recording status: The site has been recorded, mapped and photographed.

1.8 Administrative/surface ownership:

1.9 Mineral ownership:

1.10 Project name: Department of State Lands Abandoned Mines Reclamation Program

1.11 General narrative description of site: The site consists of two mine openings with coal waste piles below the adit entrances on the south-facing hillside which overlooks the South Fork of McDonald Creek and the community of Forest Grove. Some structural debris is found on the waste piles of this small mining operation which was run during the 1920s and into the 1930s.

1.12 Map reference: USGS 7.5 minute quadrangle, Horsethief Coulee East, Montana (Provisional Edition) 1985

1.13 City/town:
Vicinity of: Forest Grove, Montana

1.14 Access to site: Take county road west from Grassrange for 12 miles to the community of Forest Grove. At the Forest Grove turnoff take the range road north for about a 1/4 mile to the site which will be found on the north side of the road.

MONTANA CULTURAL RESOURCES INVENTORY

Form No. 2. Environmental Setting

Site No. 24FR680

2.1 Geographic Setting: The site is located on a south-facing hillside which is part of the line of bluffs on the north side of the South Fork of McDonald Creek. The bluffs rise steeply from the creek bottom and have numerous sandstone outcrops. The land flattens out on top of the bluffs with large areas of open grazing land intercut by drainages which flow north to the North Fork of McDonald Creek.

2.2 Elevation: 4300 ft (1311 m)

2.3 View/aspect: open

2.4 Major drainage: South fork of McDonald Creek

2.5 Minor drainage:

2.6 Water sources

Names	Distance (in m)	Elev. Change (in m)	Type/ seasonality
1.			
2.			

2.7 Vegetation - regional: Undifferentiated Stream Bottom (Payne 1973)

2.8 Vegetation - local: Rangelgrasses, sagebrush and pine trees

2.9 Soils:

2.10 Surface visibility/season of survey:
good/autumn

2.11 Other environmental factors pertaining to site location:

MONTANA CULTURAL RESOURCES INVENTORY

Form No. 3. Site Assessment and Recording Documentation

Site No. 24FR680

3.1 Condition of site: The site is in a deteriorated condition. Some structural debris from the tippie and a small shack can be seen on the coal waste piles which are the most prominent features on the site.

3.2 Site significance (NRHP): The Joe McBride coal mine was a typical small operation similar to others in the area which operated, for the most part, during the 1920s and 1930s. The site is not of great historic significance and the site integrity has been lost. The site is not recommended as eligible for listing on the National Register of Historic Places.

3.3 Impacts: The Montana Department of State Lands, as part of its abandoned mines reclamation program, plans to close the mines openings and reclaim the coal waste piles.

3.4 Recommendations: The site has been recorded, mapped and photographed and no further work is recommended.

3.5 Site located by: **Date:**

3.6 Site recorded by: Paul Anderson **Date:** 12/3/89

3.7 Revisions by: **Date:**

3.8 Permit No.: N/A

3.9 Publication(s) where site is described:

Anderson, Paul

1989 Addendum to: Cultural Resource Inventory and Evaluation of Selected Coal Mines and a Gold Mine near Lewistown, Montana, prepared by Gene Munson, GCM Services, for the Department of State Lands, 1987.

3.10 Artifact repository:

3.11 Fieldnotes/maps/photo repository: GCM Services, Inc., Butte, MT

3.12 Photo and accession numbers:

No.	Description	View
1.	<u>Forest Grove</u> - Adit #2 - Sec. 5	W
2.	Adit #2	N
3.	Adit #1	N
4.	Adit #1 entrance	NE
5.	Adit #1 - collapsed shed	SE
6.	" "	NE
7.	Adit #2 - distant view	NW
8.	possible adit in Sec. 4	NW
9.	possible adit in Sec. 4	W

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MONTANA CULTURAL RESOURCES INVENTORY

Form No. 5. Description of Historic Sites

Site no. 24FR680

5.1 Site dimensions, shape, how dimensions determined:

215,000 ft² (65,500 m²)

5.2 Features:

1. Two adit openings (#1 west - #2 east side of site)
 2. Two coal waste piles below each adit
 3. Lumber debris from tripple on the front side of the #1 adit waste pile
 4. Lumber debris and metal sheet used for coal chute liner from tippie ruins
 5. Lumber debris from small (approximately 10x10 ft) collapsed shack adjacent to adit entrance
 6. Remains of a wood and metal mine car
-

5.3 Artifacts (observed, collected):

none

5.4 Historical information and evaluation:

Little is known about this small coal mining operation. No record of the mine exists in the cancelled mine lease files in the Billings, Montana office of the Bureau of Land Management indicating that no license, permit or lease was ever obtained for the operation. According to Forest Grove resident, Austin Eike, the mine was opened by Joe McBride during the early 1920s and was operated by him until the early 1930s. Although the two adits and coal slack piles appear to be two separate operations, the underground workings were connected and the mine was operated as a single unit. Based on the size of the slack piles, it can be estimated the mine workings probably extended no more than a couple hundred feet into the hillside. The mine was operated during the autumn and winter and probably produced, at most, around 1000 tons of coal a year which would have been sold locally as a domestic fuel. Calvert (1909) described the coal in the Hobson mine, located two miles west of the McBride mine, as consisting of two benches of coal with the lower being seven inches thick and the upper 34 inches thick with a two-inch bone parting between them. The roof was a massive cross-bedded sandstone of the Kootenai formation while the floor was light-colored shale. A similar seam was probably mined in the McBride mine (Calvert 1909; Eike 1989).

5.5 References

Calvert, W. R.

1909 Geology of the Lewistown Coal Field, Montana. United States Geological Survey Bulletin 390. U. S. Government Printing Office, Washington, D.S.

Deal, Babbie and Loretta McDonald (editors)

1976 The Heritage Book of Central Montana. Fergus County Bi-Centennial Heritage Committee.

Eike, Austin

1989 Personal communication, December 24, Forest Grove, Montana.

Payne, Gene F.

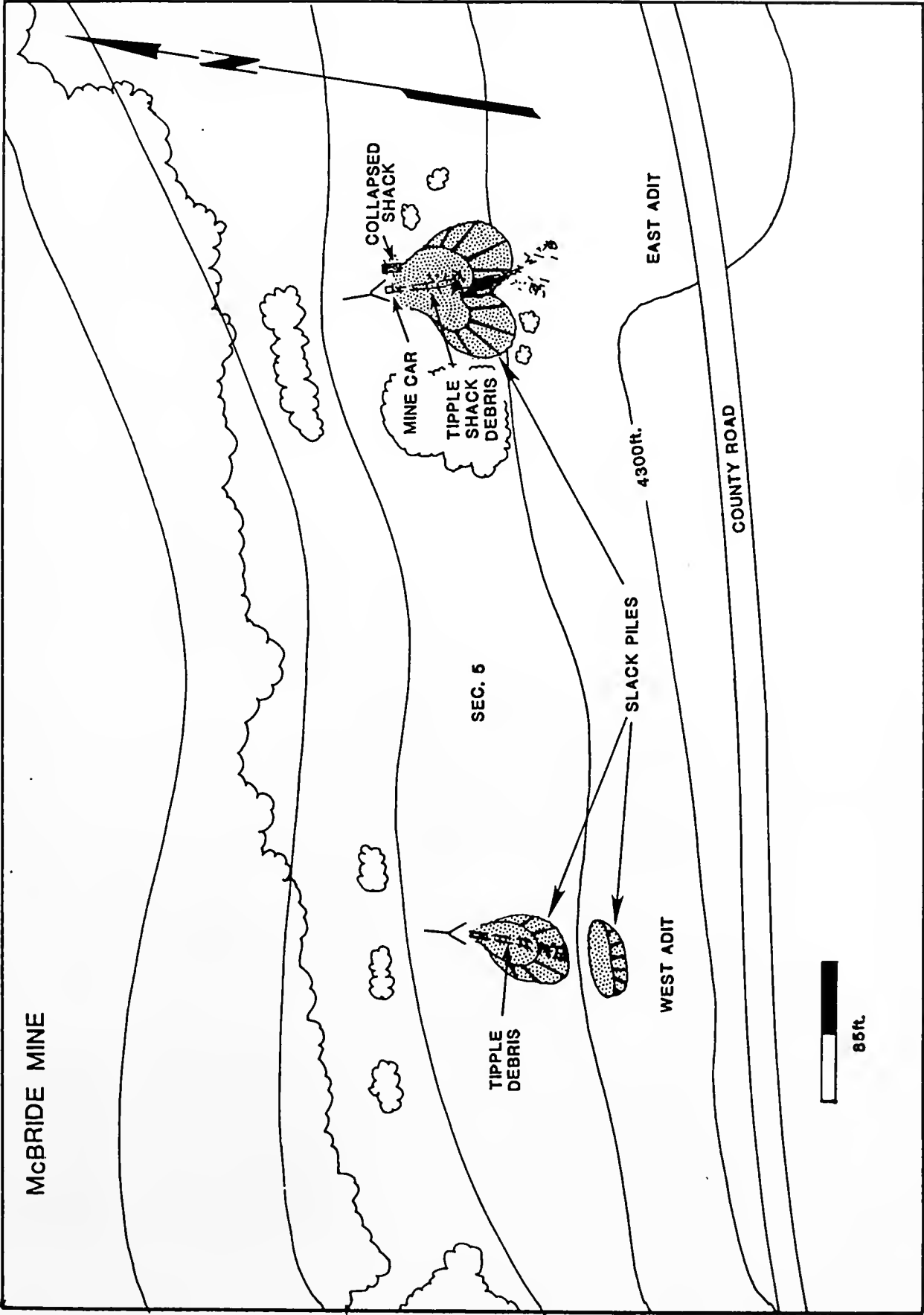
1973 Vegetative Rangeland Types in Montana. Montana Agricultural Experiment Station Bulletin 671. Montana State University, Bozeman.

Zellick, Anna

1985 History of Fergus County Coal Production: 1889-1950. (unpublished manuscript).

5.6 Subsurface testing results, methods, stratigraphy, etc.: none

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Map of the McBride Mine.



Tipple remnants on the coal waste pile at the west adit of the McBride mine (view to north).



Photo of the coal waste piles and tibble remains at the east adit of the McBride mine (view to north).

MONTANA CULTURAL RESOURCES INVENTORY

Form No. 1. Locational Information

1.1 Site Number 24FR681	1.2 Site Name Sec. 4 Prospect	1.3 County Fergus
-----------------------------------	---	-----------------------------

1.4 Township/Range: T14N, R21E SW1/4 NE1/4 SW1/4 Section 4

1.5 UTM: Zone 12	Easting 646800	Northing 520690
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1.6 Site type: Historic coal mining prospect

1.7 Recording status: The site has been recorded, mapped and photographed

1.8 Administrative/surface ownership:

1.9 Mineral ownership:

1.10 Project name: Department of State Lands Abandoned Mines Reclamation Program

1.11 General narrative description of site: The site is the location of a small prospect operation into the coal seam which lies near the surface on the north bank of the South Fork of McDonald Creek. The prospect was sunk sometime before 1907 and currently the only evidence for it is a depression adjacent to the county road just east of the community of Forest Grove. No structural debris exists and there is no evidence any coal was actually dug from the prospect.

1.12 Map reference: USGS 7.5 minute quadrangle, Horsethief Coulee East, Montana (Provisional Edition) 1985.

1.13 City/town:
Vicinity of: Forest Grove, Montana

1.14 Access to site: Take county road west from Grassrange for 12 miles to the community of Forest Grove. One mile east of the turnoff to Forest Grove and on the north side of the road where a culvert runs under the road, is a depression marking the location of the prospect.

MONTANA CULTURAL RESOURCES INVENTORY

Form No. 2. Environmental Setting

Site No. 24FR681

2.1 Geographic Setting: The site is located at the base of the south-facing hillside which is part of the line of bluffs on the north side of the South Fork of McDonald Creek. The bluffs rise steeply from the creek bottom and have numerous sandstone outcrops. The land flattens out on top of the bluffs with large areas of open grazing land intercut by drainages which flow north to the North Fork of McDonald Creek.

2.2 Elevation: 4080 ft (1244 m)

2.3 View/aspect: open

2.4 Major drainage: South Fork McDonald Creek

2.5 Minor drainage:

2.6 Water sources

Names	Distance (in m)	Elev. Change (in m)	Type/ seasonality
1.			
2.			

2.7 Vegetation - regional: Undifferentiated Stream Bottom (Payne 1973)

2.8 Vegetation - local: Rangegrasses, sagebrush and pine trees

2.9 Soils:

2.10 Surface visibility/season of survey: good/autumn

2.11 Other environmental factors pertaining to site location:

Form No. 3. Site Assessment and Recording Documentation

Site No. 24FR681

3.1 Condition of site: Nothing remains on the site from this small prospecting operation other than a depression alongside the county road just east of the community of Forest Grove. There are no structural remains or other evidence of the prospect.

3.2 Site significance (NRHP): The site has no physical integrity and is not recommended as eligible for listing on the National Register of Historic Places.

3.3 Impacts: The Montana Department of State Lands plans to seal any mine opening.

3.4 Recommendations: The site has been recorded, mapped and photographed and no further work is recommended.

3.5 Site located by: _____ **Date:** _____

3.6 Site recorded by: Paul Anderson **Date:** 12/3/89

3.7 Revisions by: _____ **Date:** _____

3.8 Permit No.: N/A

3.9 Publication(s) where site is described:

Anderson, Paul

1989 Addendum to: Cultural Resource Inventory and Evaluation of Selected Coal Mines and a Gold Mine near Lewistown, Montana, prepared by Gene Munson, GCM Services, for the Department of State Lands, 1987.

3.10 Artifact repository: _____

3.11 Fieldnotes/maps/photo repository: GCM Services, Inc., Butte, MT

3.12 Photo and accession numbers:

No.	Description	View
27	view of site area	NW
28	view of site area	N

3.12 Photo and accession numbers:

No.	Description	View
27	view of site area	NW
28	view of site area	N

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MONTANA CULTURAL RESOURCES INVENTORY

Form No. 5. Description of Historic Sites

Site No. 24FR681

5.1 Site dimensions, shape, how dimensions determined:

1250 ft² (380 m²) - based on the extent of the surface indications of the location of the prospect.

5.2 Features:

The only feature marking the location of this prospecting operation is a depression adjacent to the county road.

5.3 Artifacts (observed, collected): None.

5.4 Historical information and evaluation:

The location of this small coal prospecting operation is indicated on the USGS Horsethief Coulee East, Montana quadrangle map and is mentioned by Calvert (1909) but little else is known about the operation. The field work for Calvert's study of the Lewistown coal field was conducted in 1907 so the prospect was probably dug sometime a few years before this date. Calvert reported the coal seam was 40 inches thick in the prospect but that it did not appear to be "...of workable character in this locality." He gives no indication that any actual mining was ever undertaken on the site nor had local informants ever heard of any mining operation in this area (Calvert 1909; Eike 1989).

5.5 References:

Calvert, W. R.

1909 Geology of the Lewistown Coal Field, Montana. United States Geological Survey Bulletin 390. U. S. Government Printing Office, Washington, D.S.

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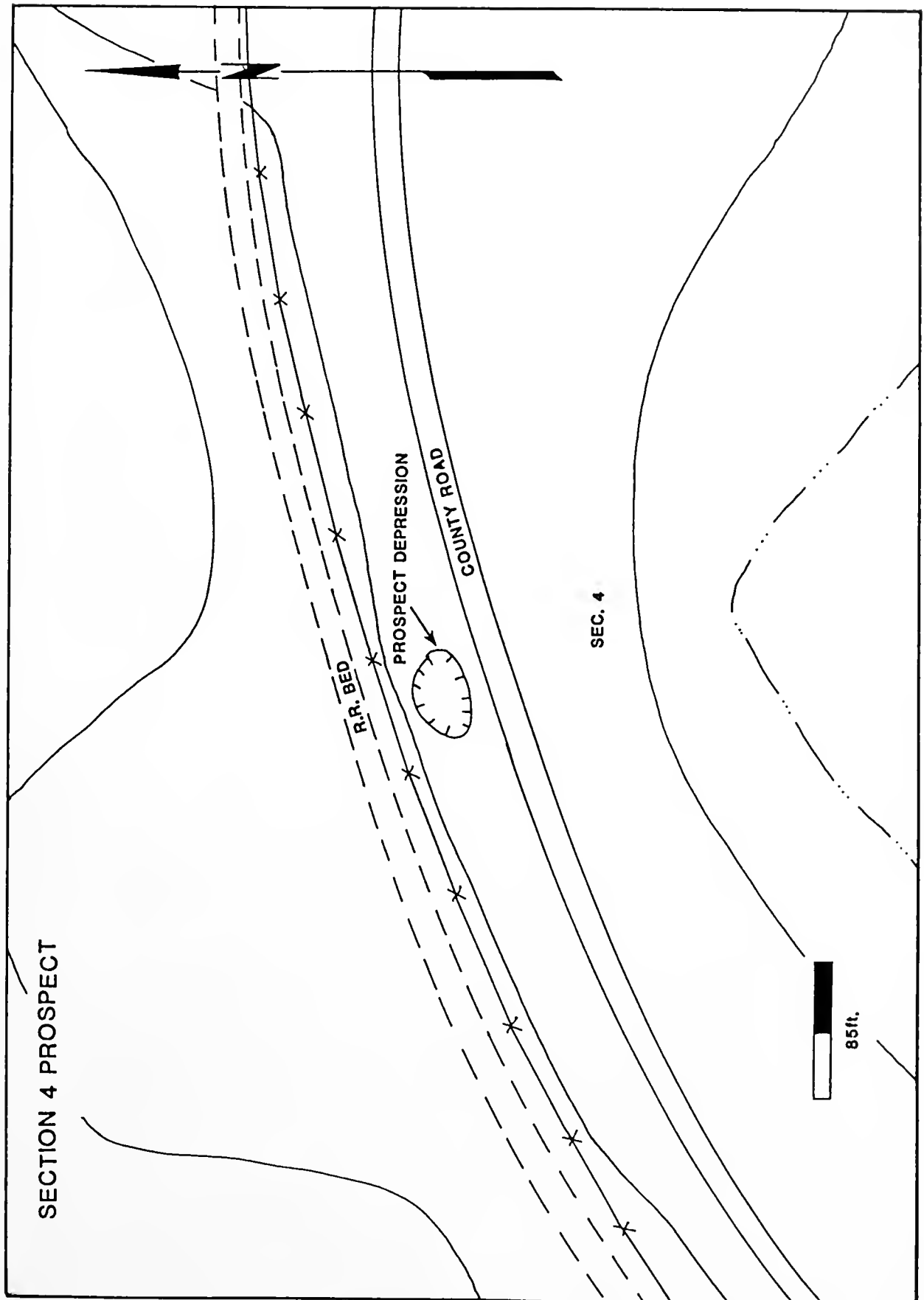
1973 Vegetative Rangeland Types in Montana. Montana Agricultural Experiment Station Bulletin 671. Montana State University, Bozeman.

Zellick, Anna

1985 History of Fergus County Coal Production: 1889-1950. (unpublished manuscript).

5.6 Subsurface testing results, methods, stratigraphy, etc.:

none



Map of the Section 4 Prospect.



View of the location of the Section 4 prospect looking west.

